ACC.14
TCT@ACC-i2 | innovation in intervention

A1862
JACC April 1, 2014
Volume 63, Issue 12

TCT@ACC-i2: The Interventional Learning Pathway

PLATELET REACTIVITY AND CLINICAL OUTCOMES AFTER CORONARY ARTERY IMPLANTATION OF DRUG-ELUTING STENTS IN SUBJECTS WITH PERIPHERAL ARTERIAL DISEASE: ANALYSIS FROM THE ADAPT-DES STUDY

Poster Contributions
Hall C
Sunday, March 30, 2014, 3:45 p.m.-4:30 p.m.

Session Title: Complexities and Complications
Abstract Category: 38. TCT@ACC-i2: Complex Patients/Comorbidities
Presentation Number: 2108-300

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Background: Patients with peripheral arterial disease (PAD) have high rates of adverse cardiovascular events following percutaneous coronary intervention. We assessed the relationship of platelet reactivity and clinical outcomes among subjects with and without PAD in the ADAPT-DES study.

Methods: ADAPT-DES was a prospective, multicenter registry of patients who were successfully treated with coronary drug-eluting stents (DES). Platelet reactivity was assessed by VerifyNow point-of-care assays. A propensity-adjusted multivariable analysis was performed to determine the relationship between PAD, platelet reactivity, and subsequent adverse events (definite or probable stent thrombosis, all-cause mortality, myocardial infarction, and clinically relevant bleeding).

Results: Among 8,582 patients, 10.2% had a history of PAD. Mean VerifyNow P2Y12 reaction units (PRU) were not significantly different between PAD and no PAD groups (194 ± 102 vs. 187 ± 96, P=0.09). The frequency of high on-treatment platelet reactivity, defined as PRU>208, was also similar (45.4% vs. 42.4% respectively, P=0.09). Patients with PAD were older (mean age 66.9 vs. 63.2 years), and were more likely to have diabetes, previous MI, previous PCI or CABG, a history of renal insufficiency, and a history of cigarette smoking (all P<0.0001). In unadjusted analyses, patients with history of PAD had higher 1-year rates of all-cause mortality, MI, stent thrombosis, and major bleeding. In a propensity-adjusted multivariable model, a history of PAD was an independent predictor of 1-year mortality (Hazard Ratio (HR) 1.74, 95% CI [1.18, 2.55], P=0.005), but VerifyNow P2Y12 PRU >208 was not (HR 1.18 [0.85-1.63], P=0.33). A history of PAD was also an independent predictor of cardiovascular death at 1 year (HR 2.06 [1.29, 3.30], P=0.002).

Conclusions: Patients in the ADAPT-DES study with PAD had significantly worse outcomes at 1-year after successful coronary DES implantation compared to those without PAD. PAD was an independent predictor of subsequent mortality, even after adjusting for high on-treatment platelet reactivity.